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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/598,102	08/17/2006	Takeshi Yamamoto	70404.108/ha	1042
54/072 7590 05/11/2009 SHARP KABUSHIKI KAISHA C/O KEATING & BENNETT, LLP 1800 Alexander Bell Drive SUITE 200 Reston, VA 20191				
EXAMINER				
SPAR, ILANA L				
ART UNIT		PAPER NUMBER		
2629				
NOTIFICATION DATE		DELIVERY MODE		
05/11/2009		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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# Office Action Summary

**Application No.**

10/598,102

**Applicant(s)**

YAMAMOTO ET AL.

**Examiner**

ILANA SPAR

**Art Unit**

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-8508)
- Paper No(s)/Mail Date 8/17/2006 12/02/2008
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Inventor's Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement filed August 17, 2006 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. It has been placed in the application file, but the information referred to therein (specifically, document EP 1,136,977) has not been considered.

### ***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 12 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. A computer program is claimed, but it is not tied to a computer readable medium executable on a computer, and therefore does not fall into one of the four categories of statutory subject matter.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 5, 8, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Schilling et al. (Japanese Published Patent Application 2001-215945).

With reference to claim 1, Schilling et al. teaches a display device mounted to a mode of transport including at least a first display area and a second display area (see paragraph 1, lines 3-5) which is closer to a position of an operator than is the first display area when the display device is mounted to the mode of transport, the display device comprising:

first luminance level output means outputting a first luminance level representing luminance of an image display produced in the first display area (see paragraph 15, lines 4-5);

second luminance level output means outputting a second luminance level representing luminance of an image display produced in the second display area (see paragraph 15, lines 4-5); and

luminance limiting means correcting according to the first luminance level and the second luminance level so that the luminance of the image display produced in the first display area is further limited than the luminance of the image display produced in the second display area (see paragraph 1).

With reference to claim 5, Schilling et al. teaches all that is required with reference to claim 1, and further teaches that:

the first luminance level output means outputs the first luminance level according to image data for the image display produced in the first display area (see paragraph 15, lines 4-5); and

the second luminance level output means outputs the second luminance level according to image data for the image display produced in the second display area (see paragraph 15, lines 4-5).

With reference to claim 8, Schilling et al. teaches all that is required with reference to claim 1, and further teaches luminance regulation disable means precluding an operation of the luminance limiting means in response to an instruction from a driver and/or a fellow passenger (see paragraph 15, lines 10-11; it would be obvious that if the luminance values can be controlled by the user, the automatic luminance control means would be disabled by the user to allow the user to obtain control of the luminance).

With reference to claim 11, Schilling et al. teaches a method of controlling a display device mounted to a mode of transport including at least a first display area and a second display area which is closer to a position of an operator than is the first display area when the display device is mounted to the mode of transport, the method comprising the steps of:

outputting a first luminance level representing luminance of an image display produced in the first display area (see paragraph 15, lines 4-5);

outputting a second luminance level representing luminance of an image display produced in the second display area (see paragraph 15, lines 4-5); and

correcting according to the first luminance level and the second luminance level so that the luminance of the image display produced in the first display area is further

limited than the luminance of the image display produced in the second display area (see paragraph 1).

5. Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Todoroki et al. (Japanese Published Patent Application 04198983).

With reference to claim 1, Todoroki et al. teaches a display device mounted to a mode of transport including at least a first display area and a second display area which is closer to a position of an operator than is the first display area when the display device is mounted to the mode of transport, the display device comprising:

first luminance level output means outputting a first luminance level representing luminance of an image display produced in the first display area (see Constitution, lines 4-6);

second luminance level output means outputting a second luminance level representing luminance of an image display produced in the second display area (see Constitution, lines 4-6); and

luminance limiting means correcting according to the first luminance level and the second luminance level so that the luminance of the image display produced in the first display area is further limited than the luminance of the image display produced in the second display area (see Constitution, lines 6-12).

With reference to claim 3, Todoroki et al. teaches all that is required with reference to claim 1, and further teaches motion detecting means sensing a motion of the mode of transport (see Constitution, lines 1-2),

if the mode of transport is determined to be moving according to a result of sensing fed from the motion detecting means, the luminance limiting means correcting according to the first luminance level and the second luminance level so that the luminance of the image display produced in the first display area is further limited than the luminance of the image display produced in the second display area (see Constitution, lines 2-4).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 2, 4, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schilling et al. in view of Ditzik (US Patent No. 5,771,039).

With reference to claim 2, Schilling et al. teaches all that is required with reference to claim 1, but fails to teach separate backlights.

Ditzik teaches a liquid crystal display where:

the first and second display areas are provided on a transmissive liquid crystal display device with separate backlights for each of the display areas (see column 10, lines 32-52); and

the luminance limiting means regulates output optical intensity of one of the backlights which corresponds to the first display area and/or output optical intensity of the other one of the backlights which corresponds to the second display area (see column 10, lines 47-52 in view of Schilling et al., paragraph 1).

It would have been obvious to one of ordinary skill in the art at the time of invention to use separate light sources for the separate display areas such that the luminances of the display areas could be independently controlled based on the user's needs, as taught by Ditzik.

With reference to claim 4, Schilling et al. and Ditzik teach all that is required with reference to claim 2, and Schilling et al. further teaches that the first and second display areas are both provided on a single transmissive liquid crystal display device (see paragraph 15, lines 1-2).

With reference to claim 7, Schilling et al. and Ditzik teach all that is required with reference to claim 2, and Schilling et al. further teaches:

brightness detecting means for sensing brightness inside the mode of transport (see paragraph 15, lines 9-10); and

optical intensity regulation data correction means correcting optical intensity regulation data according to an output of the brightness detecting means, the optical intensity regulation data being used to regulate the output optical intensity of the



backlights, the intensity being regulated by the luminance limiting means (see paragraph 15, line 9 to paragraph 16, line 6).

9. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schilling et al. in view of Prince et al. (US Patent No. 5,440,322).

Schilling et al. teaches all that is required with reference to claim 1, but fails to teach pixel correction.

Prince et al. teaches that the luminance limiting means corrects pixel values for pixels corresponding to the image display produced in the first display area and/or pixel values for pixels corresponding to the image display produced in the second display area (see column 6, lines 49-55).

It would have been obvious to one of ordinary skill in the art at the time of invention that it is possible to have pixel voltage errors due to crosstalk, and that in order for the pixels to display correct luminance values, crosstalk correction is required, as taught by Prince et al. (see column 2, lines 4-29).

10. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schilling et al. in view of Kawashima et al. (US Patent No. 6,188,380).

Schilling et al. teaches all that is required with reference to claim 1, but fails to teach luminance sensors for the display luminance.

Kawashima et al. teaches a first luminance sensor sensing the luminance of the image display produced in the first display area and a second luminance sensor sensing the luminance of the image display produced in the second display area,

the first luminance level output means outputting the first luminance level according to a detection signal from the first luminance sensor,

the second luminance level output means outputting the second luminance level according to a detection signal from the second luminance sensor (see column 4, lines 8-42).

It would have been obvious to one of ordinary skill in the art at the time of invention to include luminance sensors for each display as a feedback control means to ensure that the display luminances are at the preset intended values.

11. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schilling et al. in view of Cole (US Patent No. 4,581,640).

Schilling et al. teaches all that is required with reference to claim 1, but fails to teach an aspect ratio of 7:3 or greater.

Cole teaches a display device wherein the first display area and the second display area, when seen as a whole, have an aspect ratio of 7:3 or greater (see column 3, lines 28-35 and Figure 1).

It would have been obvious to one of ordinary skill in the art at the time of invention that a display can have an aspect resolution of any value which accommodates the data to be displayed, and it is further already known in the art that a display with multiple display areas can have an aspect ratio of 7:3.

12. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schilling et al. in view of Nakaji et al. (US Published Patent Application 2002/0075136).

With reference to claim 12, Schilling et al. teaches:

outputting a first luminance level representing luminance of an image display produced in the first display area (see paragraph 15, lines 4-5);

outputting a second luminance level representing luminance of an image display produced in the second display area (see paragraph 15, lines 4-5); and

correcting according to the first luminance level and the second luminance level so that the luminance of the image display produced in the first display area is further limited than the luminance of the image display produced in the second display area (see paragraph 1).

Schilling et al. fails to teach that a computer program causes the display to execute the above functions.

Nakaji et al. teaches that a display is controlled by a controller comprising a central processing unit and a memory on which a program can be stored (see paragraph 51, lines 10-18).

It would have been obvious to one of ordinary skill in the art at the time of invention that it is common for displays to be controlled by computers, such that functions carried out by the displays are caused to be executed by computer programs.

With reference to claim 13, Schilling et al. and Nakaji et al. teach all that is required with reference to claim 12, and Nakaji et al. further teaches a computer-readable storage medium (see paragraph 51, lines 16-17).

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ILANA SPAR whose telephone number is (571)270-7537. The examiner can normally be reached on Monday-Thursday 8:00-4:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on (571)272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Bipin Shalwala/  
Supervisory Patent Examiner, Art Unit 2629

ILS